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AUTHOR Patton, Michael Quinn
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ABSTRACT

Parental reaction to open education in North Dakota was studied. The hypotheses predicted that there would be less parental acceptance of and support for the open classroom according to: the greater the classroom openness; the less the parents' cosmopoliteness, the smaller the town population, the older the parents, the lower the informational level about the innovation, the less parental involvement with and experience in open classrooms, the less the degree children are perceived as being happy with school; the less parents perceive their children as progressing in school, and the greater the perceived home discipline problems. Data were based on interviews with 276 parents with children in open classrooms during the 1971-72 school year in 16 communities. Interviews obtained data on the parents' (1) factual knowledge about the classroom, (2) reactions to the classrooms attitudinally; (3) perceptions of how the classroom may have affected their child's home behavior, (4) information about and perceptions of open education and the children, and (5) personal information. Both closed, multiple choice items and short-answer, open-ended questions were used. Results of a stepwise multiple regression analysis were presented, with preference for more detailed, nonparametric statistical analyses. Findings indicated that the child's perceived progress, town size, child's comparative enthusiasm for school, parent observed classroom, parent classroom participation, and changes in home discipline problems were first on the stepwise process. (Author/NQ)

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PARENTAL REACTION TO EDUCATIONAL INNOVATION in NORTH DAKOTA: A THEORETICAL PERSPECTIVE and an EMPIRICAL ASSESSMENT

by

Michael Quinn Patton

University of Minnesota
Minneapolis, Minnesota

Paper prepared for the 1974 Meetings of the Rural Sociological Society, Montreal, Canada

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Parental Reaction to Educational Innovation in North Dakota: A Theoretical Perspective and an Empirical Assessment

Educational researchers have paid relatively little attention to parents in their studies of innovation diffusion. The school or school system has been studied frequently as the adopting unit in diffusion studies (e.g., Mort, 1937, 1941, 1964). Carlson (1965) has argued that the principal and superintendent are really the key to the diffusion process in education; thus, he and his colleagues at the Center for the Advanced Study of Educational Administration, University of Oregon, have focused on administrators as adoptors of innovations. Considerable attention has also been focused on the teacher as innovator, though such studies usually involve the introduction of educational hardware or some fairly concrete practice (cf. Miles, ed., 1964). But parents have been largely ignored in these studies. Our major departure from the tradition of diffusion of educational innovation studies is in our focus on parental reaction to pervasive educational innovation.

In the twenty-three studies of innovation collected by Miles (1964) to represent the state of the art, not a single study examines parental reaction, except occasionally to note in passing that parents can make or break innovative efforts. Gotkin and Goldstein (1964) noted that they had interviewed parents about their reaction to programmed instruction but they reported only that "less than 5 percent of each group [teachers, administrators, boards of education, and parents] were checked in the categories 'opposed' or 'strongly opposed'" (p. 232). In the same edited volume, Fox and Lippitt reported that teachers are concerned about pressures from parents for academic achievement (p. 276); Mort noted that

public support for innovations is crucial (p. 318); and Gordon N. Mackenzie remarked that citizen and parent groups are often important in change (pp. 412, 502).

Parent Involvement in Education

The historical roots of parent involvement in American public schools can be traced to the vesting of political control over the schools in the hands of local people (cf. Cremin, 1964:10). However, as school systems grew, a separation between the professionals who ran the schools and the local people who supported the schools emerged. The issues of school and community came to focus not on contact between them, but on the independence of the school from the community (Green, 1969:116).

Complicating community involvement in the schools is a longstanding debate over whether the schools should exist primarily to guarantee the stability of existing society or whether schools should be active in changing and reforming existing society (cf. Waller, 1967:15-30; Collins, 1971). There are frequently inconsistencies between educational ideology and educational practice in this regard, and most schools caught up in the demands and counterdemands of opposing interest groups try to play both roles. The schools are responsible for transmitting the cultural heritage of the past to new generations but also for preparing children for an unknown future. The schools are vehicles for upward mobility, but they also function to maintain the existing stratification system and to channel students into their proper status niche. Moreover, the demands made on the schools and the expectations of parents have risen steadily as educational attainment has become increasingly important for upward mobility in the United States (cf. Blau and Duncan, 1967:430).

Today, parents generally do not have a direct influence on school policy. Rather, they establish the parameters within which the school operates (cf. Brickell, 1964:502). Parental influence, where and when it has existed at all, have been

largely restricted to middle and upper class parents (Katz, 1971). The current demands by poor people and minority groups for greater control over the schools are unprecedented in their challenge to the existing educational establishment (Street, 1971; Perrone, 1972).

The new upsurge in parent activism is reflected in a more recent edited volume on Innovation in Mass Education (Street, 1971). In contrast to the earlier Miles (1964) anthology, the articles collected by David Street give considerable attention to the relationship of the schools to the community. These studies make it clear that parents are a force to be reckoned with in attempting to change public schools. But such studies are still more the exception than the rule. Boocock (1972) notes that parents usually enter educational research studies only when their socio-economic backgrounds are related to the achievement and success of their children. She comments that "while we know a great deal about the effects of families upon individual children's academic success, the direct effect of parents as a group upon the productivity of schools as social systems has received scant research attention" (p. 263).

Yet, the direct effect of parental pressure on the schools may have significant social and educational consequences. Instead of simply seeking government intervention to guarantee quality education, many community groups have begun demanding personal access to and power over their local schools to make sure that "quality" in the educational process is defined in their own terms. Recognizing this shift in emphasis, the U. S. Office of Education has recently sponsored interviews with parents by the Stanford Research Institute, the National Opinion Research Corporation and the Columbia Teachers College to evaluate federally - sponsored Follow-Through programs (cf. Grannis, 1972). It is that

same sense of timeliness that has led to our own interest in studying and understanding parental reaction to educational innovation. If, as we predict, parental activism continues to increase, the study of school-community relations and interaction will also increase--and will become increasingly important as the contemporary educational crisis deepens, drawing ever more parents into the educational arena in unprecedented fashion.

We would add only that the upsurge of parental activism is not a monolithic movement. The reasons parents are being drawn into the educational arena are as diverse and complex as the issues which make up the contemporary crisis. For some the issues have an ethnic or racial foundation; for others problems of economic deprivation are central. Many parents are concerned about achievement scores and preparation for college entrance examinations. Some are reacting to a sense of loss of community (cf. Newmann and Oliver, 1967). Others simply have a feeling that things are wrung, their children are neglected, the schools seem alien, and things are not getting better. There is hardly any aspect of school policy and practice that has not been brought into question.

> Decisions heretofore relatively insulated from politics are now being attacked by parents, political pressure groups, teachers, and minority groups. Curriculum adoption, grading policy, school reorganization, tracking, composition of classes and assignment of school personnel are now political issues. The policy maker's basic goals and values, whether openly professed, implicit, or falsely attributed, are being questioned. Often the charge of the challengers is that the "system" or its leaders are pursuing goals based on underlying values which are improper, and some change in values, leaders, programs, or the controlling constituency is necessary (Berlak, 1970:261).

Whatever the specific issue or general concern, "all of the school-discussion has at its foundation the question of what young people will believe, or not believe, about the way they live, about the way their nation lives, and

about the way in which it serves or does not serve the cause of justice" (Kozol, 1972:414). It is in this context that our study of parental reaction to educational innovation in North Dakota can best be understood. (For a more complete discussion of the issues raised in this introductory section see Patton, 1973:197-209).

A Theoretical Perspective on Parental Reaction to Educational Innovation

The context we have established is extremely broad, the issues vast and complex. It is clear that we must narrow our perspective if the problem is to be made manageable, but the task of narrowing is not easy. Waller stated the problem with great insight and poignancy: "One who thinks about the relation of the school to the community which supports it will soon come upon questions of public policy which it would take an Einsteinian grasp of the calculus of felicity to answer" (Waller, 1967:33).

We shall attempt to gain some insight into one aspect of the relationship between the school and the community by studying parental reaction to the innovation of open education in North Dakota. Our theoretical perspective is based heavily on the notion that a diversified environment and a diversity of prior experiences are related to individual acceptance of innovations. Table I lists our major premises, derived hypotheses, and corrollaries. Our list of premises follows the model suggested by Hage (1972:152-167) where the definitional premise (I) tells what must be done; the mechanism premise (II) tells how it can be done; the action premise (III) tells how it will be done; and the operational premise (IV) assumes the need for powers and constants. The hypotheses to be tested are derived from the action premise. Though we are specifically interested in explaining parental reaction to educational innovations, we have stated the premises as general propositions applicable to all societies and all organizations.

TABLE XI

PREMISES AND DERIVED HYPOTHESES ABOUT
PARENTAL REACTION TO EDUCATIONAL INNOVATIONS

Premises *

I. Definitional Premise: All societies and all organizations must provide for the socialization of new members into the society or the organization.

II. Mechanism Premise: Socialization can be achieved in a relatively traditional fashion or a relatively non-traditional fashion. The content of socialization and the mechanisms for achieving socialization vary along a traditional/non-traditional continuum.

A. The traditional content of socialization is that content which makes up the belief systems, knowledge, skills, values, and behaviors of the adults of society or the incumbents of the organization. The traditional mechanisms of socialization are those mechanisms that were employed to socialize the present adults of the society or the present incumbents of the organization.

B. The greater the departure — in any direction — from the traditional content and mechanisms of socialization, the more non-traditional (by definition) the content and mechanisms of socialization.

III. See pgs 23-24

IV. Operational Premise: Variations in the personalities, intelligence, circumstances of, and means available to, adults in a society and incumbents in an organization impose limits on the degree to which the action premise (III) operates.

*The definitional premise(I) tells what must be done; the mechanism premise (II) tells how it can be done; the action premise (III) tells how it will be done; and the operational premise (IV) assumes the need for powers and constants.

TABLE XI continued

PREMISES AND DERIVED HYPOTHESES ABOUT
PARENTAL REACTION TO EDUCATIONAL INNOVATIONS

Derived Hypotheses

1. The greater the open innovativeness of a classroom (i.e., the more non-traditional the classroom), the less the parental acceptance of and support for the classroom.

2. The greater the cosmopoliteness of parents, the greater their acceptance of and support for innovative classrooms.

3. The larger the town population in which the parents reside, the greater their acceptance of and support for innovative classrooms.

4. The higher the socioeconomic status of parents, the greater the acceptance of and support for innovative classrooms.

5. The older the parents, the less their acceptance of and support for innovative classrooms.

6. The higher the level of information of parents, the greater their degree of support for innovative classrooms.

7. The greater the parents' direct experience with and involvement in an innovative classroom, the greater the parents' acceptance of and support for the classroom.

8. The greater the degree to which children are perceived by parents as being happy with school, the greater the parental support for and acceptance of the classroom.

9. The greater the degree to which children are perceived as progressing in school, the greater the parental support for and acceptance of the classroom.

10. The greater the perceived discipline problems with the children at home, the lower the level of parental acceptance of and support for the classroom.

11. There will be no variation in degree of parental acceptance of and support for the classroom at different grade levels and for classrooms of different size.

The first premise (See Table I) stipulates that all societies and all organizations must provide for the socialization of new members into the society or the organization. Provision for socialization has been considered one of the functional prerequisities of society (Aberle et al, 1950:109) and of organizations (Olsen, 1968:74-75). Socialization is clearly a complex process both in terms of the content and the mechanisms for achieving socialization. It is also clear that there is no such thing as the content of socialization and the mechanisms for achieving socialization. No society is so rigid that it does not permit at least some flexibility and some range, however limited in acceptable behavior. Nevertheless, for any given society at any given point in time we can be sure that provisions will be made for socialization and that the acceptable range of behavior to be transmitted during socialization can, theoretically, be described.

The second premise states that socialization can be achieved in a relatively traditional fashion or a relatively non-traditional fashion. The traditional content of socialization is the range of acceptable behaviors exhibited by the adults of a society or the incumbents of an organization. The traditional mechanisms of socialization are those mechanisms that were employed to socialize the present incumbents of the organization. The greater the departure from the traditional content and mechanisms of socialization, the more non-traditional (by definition) the socialization. However, "a society cannot persist unless it perpetuates a self-sufficient system of action--whether in changed or traditional form--through the socialization of new members, drawn, in part, from the maturing generation" (Aberle et al., 1950:109).

It may be helpful to compare the traditional/non-traditional continuum of socialization to a rigid/flexible continuum of socialization, in order to illustrate what we mean by departures from the traditional content and mechanisms of socialization. A rigid socialization process is one where there is a very narrow range of

acceptable behaviors and a highly prescribed set of procedures for teaching new members those acceptable behaviors. Such a society would be high on centralization and low on individualization. (This rigid/flexible continuum parallels Perrow's (1967, 1970) conception of the routine/non-routine continuum of technology in people-changing organizations.) If the traditional content and mechanisms of socialization in a society are rigid, then the greater the degree of flexibility that enters into the socialization of a new generation, the more non-traditional the socialization. However, a traditional socialization process does not necessarily imply a rigid socialization process. If the traditional socialization process entails a high degree of flexibility, then the greater the degree of rigidity that enters into the socialization of a new generation, the more non-traditional the socialization.

The schools are a major agent of socialization in industrial countries. Part of the function of the schools is to pass on the traditions of the past, to teach children the culture of their country. As Waller (1967:17-19) explained this process for the United States, "the schools Americanize by immersing the young in the culture and tradition of the country, by inducing them to participate as much as possible in the American arena....The ordinary school does not serve as a center of inventions..., but serves rather as a very important sub-center in the process of cultural diffusion." In an earlier analysis (Patton, 1973:31-79) we have argued that the traditional mechanisms for socializing children in American schools can be described as high centralization, high formality, low diversification, low individualization, low integration, low peer interaction, low community-resource-use. Our analysis (Patton, 1973:151-154) of data collected from a random sample of North Dakota classrooms demonstrated that, at least for that sample, this assertion was true. Non-traditional socialization

in American public schools, then, would be represented by departures from the traditional end-points of these continua.

Open education, on the other hand, seems to us to represent a relatively radical departure from traditional American schooling. Open education is a pervasive innovation that can be characterized by high decentralization, high informality, high diversification, high individualization, high thematic integration, high peer interaction, and high community-resource-use; (see Patton, 1973, for nominal and operational definitions of these dimensions). In many ways the open classroom is a special case of the organic (Burns and Stalker, 1961) or dynamic (Hage and Aiken, 1970) models of formal organizations whereas traditional American schools can be described as special cases of mechanical or static models of formal organization. Open education advocates emphasize individualized instruction, student participation in classroom decision-making, work and activities based on the interests of children, greater attention to the affective and social development of children, and a more informal relationship between the teacher and children (Bussis and Chittenden, 1970; Silverman, 1970; Perrone, 1972; Gross, 1969; Kohl, 1957, 1969). It is parental reaction to the innovation of open education that we are interested in studying.

The third premise specifies under what conditions the adults of a society (in this case, parents), or the incumbents of an organization, are likely to respond positively to departures from the traditional content and mechanisms of socialization. (Though this premise is specifically directed at innovations in socialization practices, it is assumed to hold for any innovation.) The third premise has four main parts. The first part is based on the assumption that there is a tendency towards inertia in human groups. Most people and most social

collectivities, all other things being equal, prefer the known to the unknown, the familiar to the unfamiliar, and stability to change. The "tendency to inertia" assumption means that it is generally easier, less painful, and demands less effort (in the short run) to continue in established, traditional patterns of behavior than to change those behaviors and adapt to new conditions (cf. Zipf, 1948; Etzioni, 1968:387-427).

The remaining three parts of the third premise suggest that the tendency to inertia in socialization practices has the greatest chance of being reversed when the adults of the society, or the incumbents of the organization, (1) have a high amount of legitimate information about the proposed innovation, (2) have been exposed to and involved with alternative contents and mechanisms of socialization, and (3) perceive the innovations as making new members happier and more successful. This is by no means an exhaustive list of the conditions which might affect the diffusion of socialization, or educational, innovations. We have simply isolated and made explicit some basic assumptions about human behavior; namely, that people respond more favorably to things about which they have some information, experience, and knowledge (i.e., things that are known and familiar), and that people generally prefer a higher degree of happiness and success (as they define those qualities) to a lesser degree of happiness and success.

Parts of this premise have a common sensical quality about them that may give rise to that old bugaboo which frequenlty prusues sociologist accusing them of going to great length to prove the obvious. Obviously more information about and experience with an innovation is better than less information and experience. And obviously people prefer happiness to unhappiness. Need such common sense, obvious assumptions even be stated?

We can best answer such a question by exploring the meaning of these

assumptions for the diffusion of open education. We have frequently encountered teachers and administrators who argue that if parents are informed about changes in school practices they will only become confused and cause trouble. The "obvious" assumption in this case is that parents are not qualified to pass judgment on educational innovations. The less they know about such changes, the better. Hide the meaning of innovations in long, fancy titles, and explain changes in school practices in phrases so filled with jargon that parents are too intimidated to show their ignorance, then you will minimize parental opposition to innovations. Inform parents of the changes you intend, give them firsthand experience with such changes, and the result will be disastrous. Ignorance is bliss. Inform parents as little as possible and you will be assured of their trust and support.

A little reflection on the recent operations of American government should confirm for the reader the widespread acceptance in officialdom of this alternative assumption about human behavior. In this context, our hypothesis that the greater the information, the greater the support for the innovation, is anything but obvious. Our observations suggest that this is a minority point of view among change agents, most of whom, from our experience, believe that innovations should be adopted on the basis of trust in the competency of the change agent, not on the basis of concrete information about and experience with innovations. The issue for the diffusion of open education is whether advocates of open education should attempt to "put one over on parents" by reforming classroom teaching with a minimum of public attention, or whether open classroom teachers should actively seek the alliance of parents by giving them as much information as possible. There are proponents on both sides of this issue.

The forth part of our action premise, that parents will be more supportive of change if they can be shown and do perceive that those changes will make their

children more happy, can also be questioned as an assertion of the obvious. Obviously people prefer happiness to unhappiness. Need such an obvious assumption even be tested?

Again, the issue for open education is more complex than surface appearances might suggest. Talk of making school a happier place for children carries a negative connotation of hedonism for many people. Not infrequently we have heard opponents of open education assert that a happy school environment is all well and good, but children have to learn that not everything in life is fun. Suffering, pain, drudgery, hard work--this is the stuff of which life is made. Socialize children to expect happiness and you fail to prepare them for "the real world," which is not such a happy place a good deal of the time. Teach them to seek happiness, pleasure, fun--and they will never be able to hold a job, bear the burdens of life, indeed, you run the very real risk that they will never amount to anything.

Waller (1967) captured this negative image of the adult world, and its conflict with the "happy" world of children, in his description of the job assigned "old school" teachers in preparing children for the adult world.

> In the bad old schools, partly as a result of the school curriculum and partly as an outgrowth of a stern ideal of character, an almost Spartan ideal of discipline was in vogue. Children had to do things they did not like because they did not like them. This rule had its correlate, of course, in that philosophy of the adult world, a philosophy not, to be just, altogether unproductive, that we should do every day something difficult simply because it was difficult, 'to give the will a little gratuitous exercise.' When such a philosophy ruled the schools, it was a mere incident of academic routine that if children were forced to do certain things because they did not like to do them, they did not like doing them because they were made to do them.... Education consisted of learning things one did not want to know because he did not want to know them. Whatever seemed bad was therefore good and what seemed good was bad. The best rule of school management was to find out what the children were doing and tell them to stop it (pp. 197-8).

For these "bad old schools" the happier school environment was not the better school environment. The question today is how much of this philosophy

remains in public images of the school. We cannot simply assume that parents place great value on educational innovations that make their children happier. The values and attitudes of parents in this respect have serious consequences for the diffusion of open education in American schools.

The specific hypotheses listed in Table I are derived from the action premise. This is not an exhaustive listing of the hypotheses that can be derived from these premises. We have only listed those hypotheses that seemed to us particularly relevant to an understanding of parental reaction to open education as that reaction affects the diffusion of open education. Our selection of hypotheses to be tested by data from parents with children in North Dakota open classrooms was also dictated by the evaluation needs of the New School of Behavioral Studies in Education, University of North Dakota open education program, practical considerations related to our ability to operationally define specific variables, and our intrinsic interest in these relationships. We turn now to an empirical test of these hypotheses.

Methodology

Our analysis of parental reaction to open classrooms is based on interviews with 276 parents in sixteen North Dakota communities who had children in open classrooms during the 1971-72 school year. Twenty-four classrooms are represented in the analysis. These classrooms make up the universe of 1971-72 Master's level teaching interns in the open education program of the New School of Behavioral Studies in Education, University of North Dakota, who had self-contained classrooms, grades two through eight, in the pbulic schools of North Dakota. (For a complete description of how this sample of open classrooms was chosen and of the national attention attracted by this New School program in open education, e.g., Silberman, 1970, see Patton, 1973:80-91.)

We attempted to interview twelve randomly selected parents in each of the twenty-four classrooms selected for inclusion in the study, but in four small, rural classrooms the total parent population was less than twelve. (The decision to interview twelve parents in each classroom was based on the requirements of a children's interview which was also a part of the project. The classrooms varied in size from 14 to 35 children. In pilot testing children's interviews we found that a sample of twelve children was necessary to give an accurate, valid, and reliable picture of the classroom from the point of view of the children. Having made this decision, we decided to interview the parents of the twelve children selected for the children's interviews so that we could match parents and children in the analysis stage of the research. The analysis of the children's interviews was not yet completed at the time of this writing.)

Mothers were selected for the interviews in order to standardize the sample as much as possible and because mothers are easier to find at home for an interview. Moreover, there was some feeling on the part of project participants that mothers are generally better informed about their children than are fathers, and mothers are more likely to have contact with schools. In many cases fathers were present during the interviews, but questions were directed specifically to mothers and only the mother's comments were recorded. Interviewers reported that in almost all cases where both parents were present, the father automatically yielded to the mother on questions about the children and the school. Interviews were conducted in the parents' homes.

The parent interview was developed in the fall of 1971, pilot tested in two communities in December of that year, and revised before the final field interviews in the last week of February, 1972. The interview is aimed at obtaining data on (1) the parents' knowledge of an information about the classroom; (2) the parent's reactions to the classroom--likes, dislikes,

and general attitude of support or hostility; (3) the parents' perceptions of how the classroom may have affected their child's behavior at school and at home; (4) the parents' information about and perceptions of the New School approach to teaching; (5) basic information about the children in the classroom of New School interns; and (6) basic background information about parents who have children in the classrooms of New School interns. The interview consists of both closed, multiple choice items and short-answer, open-ended questions. (See Patton, 1973: Appendix D for the full parent interview.) The mean length of the interviews was fifty-five minutes with a range from fifteen minutes to two hours.

Though North Dakota is essentially a rural state, our sample includes classrooms in towns varying in population from 100 people to 34,000 in Bismarck, the capitol city. Ten classrooms are in towns of less than 500 people; four classrooms are in towns of between 500 to 2,500 in population; five classrooms are located in communities in the 5,000 to 10,000 range; and five classrooms are in towns of over 10,000 people.

The Dependent Variable

Our measure of parental reaction to the innovation of open education is attitudinal in nature. A behavioral indicator of parental reaction to open education would be whether or not a parent chose to send a child to a more open classroom or a less open classroom. However, almost no parents in the present sample had such a choice. Their children are assigned to a given classroom by administrative action or because there is only one classroom for a particular grade level in the area. Therefore, we have had to operationalize parent acceptance in attitudinal terms.

Having asked the parents to describe and rate specific changes in the

classroom, we asked each mother to summarize her overall attitude about her child's classroom. "Considering all of the things that you know about his/her classroom this year, which one of the following phrases best describes your feelings toward his/her room right now: Are you very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable?" The responses to this question are our major single indicator of parental reaction to New School intern classrooms. The distribution of responses to this question was the following:

Very Favorable	108	39.12%
Somewhat Favorable	103	37.33%
Somewhat Unfavorable	35	12.68%
Very Unfavorable	23	8.33%
(Neutral or No Response	7	2.54%
RESPONSE TOTAL	276	100.00%

From a diffusion of innovations perspective it would be preferable to study concrete acceptance behaviors rather than favorable or unfavorable attitudes toward an innovation. As Richard T. LaPiere (1970) showed in his classical study of the discrepancy between expressed attitudes and real actions toward the Chinese, attitudes are not always good predictors of actions. Nevertheless, Rogers and Shoemaker (1971:112) point out that "there is a tendency in this direction, that is, for attitudes and behavior to become more consistent. Innovative dissonance is the discrepancy between an individual's attitude toward an innovation and his decision to adopt or reject the innovation....There is pressure in the direction of dissonance reduction." Still, the attitudinal approach is clearly inferior to the behavioral apporach. This is a major limitation on the meaningfulness of the results of our analysis. Nevertheless, we feel that an understanding of variations in parental attitudes is better than no study at all of parental acceptance of open education.

A second problem with our measure of parental reaction, and with a number of our other measures of parent attitudes, is that such attitudinal measures are not technically interval scales. We would not argue that the "distance" between somewhat favorable and very favorable attitudes is the same as that between somewhat favorable and somewhat unfavorable attitudes. Thus, there are hazards in employing such variables in parametric statistical manipulations. "On the other hand, for this 'illegal' statisticizing there can be invoked a pragmatic sanction: In numerous instances it leads to fruitful results. While the outlawing of this procedure would probably serve no good purpose, it is proper to point out that means and standard deviations computed on an ordinal scale are in error to the extent that the successive intervals on the scale are unequal in size. When only the rank-order of data is known, we should proceed cautiously with our statistics, and especially with the conclusions we draw from them" (Stevens, 1970:73).

Since we have an advantage over the reader in that we have already glimpsed the results, we invoke this pragmatic sanction of fruitfulness for any "illegal statisticizing" which follows. The efficiency and succintness of parametric statistics will result in their use throughout our analysis, though interpretations made from such data will be considered as no more than suggestive and exploratory, rather than conclusive. In an earlier analysis of this data (Patton, 1973) we analyzed non-parametric statistical tables corresponding to the parametric tables we present but whose inclusion in the main body of this report would make for extremely cumbersome reading. We found in every case that the non-parametric statistical analyses (relative frequency distributions) supported and confirmed parametric statistical results.

Data Analysis

In order to present our findings with maximum parsimony we shall here present only the results of a stepwise multiple regression analysis. Stepwise multiple regression techniques choose those independent variables which will provide the best prediction possible with the fewest independent variables. This method recursively constructs a prediction equation one independent variable at a time by successively selecting, at each step, the optimum variable given the other variables in the equation (cf. Nie et al, 1970:180-1).

Table II shows the results of this stepwise multiple regression analysis. The best predictor of overall parental attitudes toward the classroom is perceived child's progress in school ($r = -.52$, $p \geq .0005$). The second variable entered into the equation is town size ($r = -.33$, $p \geq .0005$). Parents in larger towns are more likely to accept educational innovations. The comparative enthusiasm of the child for school (compared to last year) is the third variable entered into the analysis by the stepwise process ($r = -.39$, $p \geq .0005$). Parents respond favorably to perceptions of increased enthusiasm on the part of their children and unfavorably to perceptions of decreased enthusiasm for school. The importance of the perceived progress variable and the comparative enthusiasm variable supports our basic premise that the degree to which the adults of a society are commited to the traditional content and traditional mechanisms of socialization (or the degree to which they will resist non-traditional contents and mechanisms) varies inversely with the degree to which they can be shown and to perceive that alternative contents and mechanisms make those being socialized happy and successful (as they define happy and successful).

The fourth and fifth variables entered into the stepwise multiple regression equations are the two dummy variables which indicate the source of some parents' knowledge about the classroom. Parents who simply observed the classroom have measurably different attitudes about open education than parents who actively participated in the classrooms. We asked parents if they had ever (1) directly observed their child's classroom, (2) if they had ever actually participated in the classroom, and (3) the number of times they had talked with

TABLE II

STEPWISE MULTIPLE REGRESSION ANALYSIS PREDICTING THE DEGREE OF PARENTAL SUPPORT FOR OPEN EDUCATION CLASSROOMS IN TWENTY-FOUR NORTH DAKOTA CLASSROOMS*

Order of Entry In Regression Analysis	Variable Name**	Simple r	Multiple R	Cumulative % of Variance Accounted for (R^2)
Dependent Variable: Parent Overall Reaction to the Classroom**				
1.	Child's Perceived Progress	-.52	.52	27.5
2.	Town Size	-.33	.57	33.0
3.	Child's Comparative Enthusiasm for School	-.39	.61	36.9
4.	Parent Observed Classroom	.25	.63	39.7
5.	Parent Worked in Classroom	-.12	.66	43.4
6.	Changes in Discipline Problems at Home	.37	.67	45.3
7.	How Well Informed Parent Feels	.22	.68	46.7
8.	Mother Farm Reared	.18	.69	48.2
9.	Awareness of Changes in Classroom	.22	.70	49.5
10.	Child's Level of Enthusiasm for School	.26	.71	50.8
11.	Structural Complexity of the Classroom (Openness)	.21	.72	51.6

* N= 269 parents

** Variable Codes. Dependent Variable, Parent Reaction: 1=very fav.,...,4=very unfav.; 1.Child's Perceived Progress: 1=slower than usual,2=no change, 3=more rapid than usual; 2. Town Size=actual pop. 1970 census;3. Child's Comparative Enthusiasm: 1=likes school less,2=no change, 3=likes more; 4. Parent Observed: 1=has observed classroom; 5. Parent Worked: 1 = has worked in classroom; 6. Discipline Changes: 1=decreased problems, 2=no change, 3=increased; 7. Information level: 1=very well informed...4=poorly informed; 8. Mother farm reared = 1; 9. Awareness: 6-point scale where higher score = greater awareness; 10. level of enthusiasm: 1=really loves school...5=hates school; 11. Structural complexity: 1= complex.

the teacher about school. In our sample of parents forty percent reported that they had been to school to observe firsthand their child's classroom. Fifty-five percent of these parents (or twenty-two percent of the entire sample) reported that they had also worked or helped in their child's classroom. The mothers had talked with the teacher about two times as an average, with a range from zero to nine times. These are our behavioral indicators of parent information.

We found a direct relationship between participation in and support for the classroom ($r = -.125$, $p \geq .001$). The data show clear differences between the attitudes of classroom workers and classroom observers. Sixty of the parents indiciated that they had worked in the classroom at least once. Of these sixty parents, only seven (11.7 percent) held unfavorable attitudes overall. In addition to these sixty parents, forty-eight more parents reported that they had observed their child's classroom at least once but had not worked in it. Of these forty-eight parents who had only observed the classroom, twenty-six of them (54 percent) were unfavorable towards the classroom. In brief, the data indicate that parents who worked in the classroom had a marked tendency to be supportive while parents who only observed the classroom showed a strong tendency to be hostile.

A look at the partial correlations reinforce and strengthen this conclusion. Controlling for variations in classroom openness the relationship between participation and support is increased ($r = -.17$, $p \geq .01$) and the relationship between observation and hostility is decreased ($r=.20$, $p\geq.001$). Controlling for both openness and town size (because more rural parents tended to be less favorable) the relationship between participation and favorability is again slightly increased ($r= -.19$, $p\geq.001$) and the relationship between observation and hostility is further reduced ($r=.18$, $p\geq.001$). This suggests that when variation in the degree of classroom open innovativeness is not a direct factor in reducing parental support for the classroom (a point we consider below), active parent participation in the classroom has an even

greater effect in promoting positive parent feelings about the classroom. While there is a positive relationship between the number of times the mother has talked with the teacher and more favorable feelings about the classroom, this relationship is not strong ($r = .089$).

It is not possible to say that participation in or observation of the classroom directly affected parent attitudes. Participating parents may have been convinced of the advantages of open education before working in the classroom while the observing parent may have visited the classroom to confirm her negative impressions. Yet the comments of these two groups of parents suggest that the difference between participation in and observation of the classroom is partly a matter of varying perceptions under varying degrees of involvement. The observing parent subjectively perceives the classroom as a place of confusion, noise, relatively unrestrained freedom, messiness, aimless child wandering and mobility, and lots of playing. In observing the classrooms, these parents perceived a lack of discipline, a lack of respect for the teacher, not much "work" going on, and they found it "hard to see what they're doing." Overall these parents saw a picture of what many of them simply called "chaos."

The worker in the classroom, on the other hand, appeared to be able to block out the noise and disorder by becoming involved with a small group of children. The working parent subjectively perceived a high degree of individualization, a high degree of interest on the part of children in what they were doing, a greater variety of interesting activities, a more relaxed/less pressurized atmosphere, increased creativity and independence, and positive peer interaction. Where the observing parent sees noise, the working parent sees children actively involved in what they are doing. Where one perceives a messy,

disorderly room, the other sees children bearing a greater role in classroom decision-making. The unfavorable parent reacts to an apparent "lack of discipline, while the favorable parent perceives greater "self-discipline." "Too much freedom" for one parent is viewed as the development of "independence" by another. The lack of respect for the teacher found by observing parents is translated into a relaxed, supportive relationship by the participating parent. While these contrasts run throughout the varying comments of favorable versus unfavorable parents, they are most accentuated between classroom workers and observers. The apparent "aimless wandering" and "play" perceived by unfavorable, observing parents is viewed by their favorable, working counterparts as children in active pursuit of their individual interests. Where one parent finds it difficult to see what the children are doing because there is no fixed class schedule, the other parent perceives flexibility and diversity.

These two composites are merely descriptive. No individual parent made all of these comments. Yet, the two profiles are relatively accurate as ideal-types, not only of differences in perceptions of participating and observing parents, but these differences characterize varying perceptions of favorable and unfavorable parents in general. Whether these varying perceptions emerge as a result of a different degree of involvement in the classroom or whether they are simply a manifestation of a larger frame of reference, it is clear that favorable and unfavorable parents see different things when they look at open classrooms.

These five variables--perceived child's progress, town size, child's comparative enthusiasm for school, whether or not the parent has observed the classroom, and whether or not the parent has participated in classroom activities--account for forty-three percent of the variance in the dependent variable.

The sixth variable entered into the regression equation is perceived changes

in discipline problems at home ($r = .37$, $p \geq .0005$). The discipline motif runs throughout the interviews. While parents want to see their children happy and successful, they value discipline both in its own right and because they believe that discipline is necessary for the long-range happiness and success of their children.

The seventh variable in the stepwise regression analysis is the parent's perception of the degree to which she is well informed. The better informed parents felt they were, the greater their support for the classroom ($r = .22$, $p \geq .001$).

The data also show that parents in more urban settings with more cosmopolite backgrounds tended to be more favorable. As the eighth variable in the regression equation shows, farm-reared mothers were somewhat less likely to be supportive of educational innovations ($r = .18$, $p \geq .001$). This finding compliments the importance of town size (the second variable in the stepwise regression analysis) as a predictor of parent reaction. Moreover, we found that a single rural/farm background scale made-up of four indicators - mother farm reared, father farm-reared, mother and/or father attendance at a one room schoolhouse, and current farm residence - was relatively highly correlated with parental expression of hostility towards innovative classrooms ($r = .24$, $p \geq .001$). These data confirm our hypothesis that less cosmopolite parents are less supportive of the classroom and less accepting of innovations in education. (See Patton, 1973, for a more detailed analysis and discussion of these findings.)

The results of the stepwise regression analysis support our premise that the degree to which the adults of a society are commited to the traditional content and mechanisms of socialization (or the degree to which they will resist

non-traditional contents and mechanisms) varies directly with (1) the degree to which the non-traditional content and mechanisms of socialization depart from traditional practices and inversely with (2) the amount and legitimacy of the information they have about alternative, i.e., non-traditional, contents and mechanisms and (3) the degree to which they have been exposed to an involved with alternative contents and mechanisms of socialization. In brief, the more cosmopolite the parent, the more informed the parent feels herself to be, and the less innovative the classroom, the more likely the parent is to support the classroom.

The structural complexity variable in the regression analysis supports this last point. In another analysis (Patton, 1973) we devised composite scales to measure varying degrees of openness in classrooms based on data from teacher interviews. The classroom characteristic that correlated most significantly with our measure of overall classroom openness was a dummy variable multi-age group factor ($r = .70$). Ten of the twenty-four classrooms were multi-age group classrooms. Though space does not permit a full development of our justification here (cf. Patton, 1973:161-163), we would argue that the multi-grade factor can be used as an indicator of structural complexity, both a component and correlate of overall classroom openness. The greater the structural complexity of the classroom (i.e., the more open the classroom) the greater the proportion of parents who were unfavorable towards the classroom ($r = .21$, $p \geq .001$). The correlation between our direct measure of classroom openness based on teacher interview data, and parental reaction confirms the hypotheses that the greater the openness of the classroom, the greater the parental hostility toward the classroom ($r = .24$, $p \geq .001$). However, the multi-grade factor is the variable which emerged in the stepwise regression analysis to capture most of the variance contributed by variations in degree of classroom openness.

Space does not permit a discussion of the interrelationships among these variables. We would note, however, that parental reaction was not found to be related to family income, parent education levels, parent age, parents' perception of child's ability, parent educational expectations for their children, size of classroom, grade level, or school size.

The eleven variables in the stepwise regression analysis shown in Table II account for fifty-two percent of the variance in parental acceptance of open education. The addition of nine more independent variables adds only five percent to the proportion of variance explained. The regression analysis done here compares favorably with other multiple regression analyses in the diffusion of innovations literature. In thirty-six such analyses reviewed by Rogers and Shoemaker (1971:192-3) an average of nine variables were employed for a mean proportion of variance explained of forty-four percent.

Summary

This paper reports only one part of an analysis of interviews with 276 North Dakota parents whose children were in open classrooms. In addition to the stepwise regression analysis reported here we have studied non-parametric statistical tables, intercorrelation matrices, partial correlations, and standardized regression coefficients (cf.Patton, 1973). These analyses support our basic premise that:

> The degree to which the adults of a society or the incumbents of an organization are committed to the traditional content and the traditional mechanisms of socialization (or the degree to which they will resist non-traditional contents and mechanisms) varies directly with (1) the degree to which the non-traditional content and mechanisms of socialization depart from traditional practices, and varies inversely with (2) the amount and legitimacy of information they have about alternative, i.e., non-traditional, contents and mechanisms, (3) degree to which they have been exposed to and involved with alternative contents and mechanisms

of socialization, and (4) the degree to which they can be shown and do perceive that alternative contents and mechanisms make those being socialized happy and successful (as they define happy and successful).

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